"PATENT"

TRANSMITTAL FORM

1505
WU 3/10/92
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In re
Application of: Jo Ann Marie Canich
Serial No: 676,690
Filed: March 28, 1991
For: OLEFIN POLYMERIZATION CATALYSTS

) Before the Examiner
) David Wu
)
) Group Art Unit
) 1505
)
) Baytown, Texas
) March 16, 1992

THE COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Sir:

[X] The undersigned hereby certifies having information and a reasonable basis for belief that this correspondence will be deposited with the United States Postal Service "Express Mail Post Office to Addressee" service with an Express Mailing Number of RB624937357US addressed to Commissioner of Patents and Trademarks, Washington, D.C. 20231, on March 16, 1992.

Transmitted herewith is a response in the above-identified application.

[X] Fee for Disclosure Statement under 35 USC 1.99 or 37 CFR 1.501 and Form 1449, Information Disclosure Statement is $-0-.

[ ] Petition for extension of time pursuant to 37 CFR 1.136 and 1.137 is hereby made to the extent required. The fee for this extension of time is calculated to be $_____ to extend the time for filing this response until _____.

[X] The total fee for this response and any extension of time is calculated to be $-0-.

[ ] A check in the amount of $_____ is attached.

[ ] Charge $_____ to Deposit Account No. 05-1710.

[X] The Commissioner is hereby authorized to charge any additional fees under 37 CFR 1.16 and 1.17 which may be required by this paper, or credit any overpayment, to Deposit Account No. 05-1710. A duplicate copy of this Form is enclosed.

March 16, 1992
Date of Signature

Attorney or Agent

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Gp 1505

"PATENT"

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	)	BEFORE THE EXAMINER
	)	
Jo Ann M. Canich	)	David Wu
	)	
Serial No. 676,690	)	Group Art Unit No. 1505
	)	
Case Docket No. 89B010	)	
	)	
For: OLEFIN POLYMERIZATION CATALYSTS	)	Baytown, Texas
	)	
Filed: March 28, 1991	)	March 16, 1992

Commissioner of Patents and Trademarks
Washington, D.C. 20231

DISCLOSURE STATEMENT UNDER 35 USC 1.99 OR ALTERNATIVELY UNDER 37 CFR 1.501

Sir:

The Issue Fee for the above-cited application has not been presented. The attorney for applicant became aware of the existence of four publications of potential relevance to this application on March 4, 1992 and was able to review these four publications during the evening of March 5, 1992. The four publications are listed below, and may be relevant to the subject allowed application.

(1) Gmelins Handbuch der Anorganischen Chemie, vol. 10: "Zirkonium-Organische Verbindungen", vol. 11: "Hafnium-Organische Verbindungen", 1973, Verlag Chemie, GmbH, Weinheim, DE Pages 14-25, vol. 10; pages 3-7, vol. 11.

This 1973 publication describes zirconyl and hafnyl compounds, some of which include a cyclopentadienyl ring ligand. Some of these compounds which have the cyclopentadienyl ring, or a polycyclic cyclopentadienyl ligand, also have other ligands bonded to the zirconium or hafnium atom through an oxygen or nitrogen atom.

The compounds described and claimed within the subject allowed application must either be "bridged", associated with a neutral Lewis base, or both. The compounds described in this art do not describe or suggest the inclusion of a "bridging atom" between the oxygen or nitrogen atom (heteroatom) and the cyclopentadienyl ring, both of which are bonded to the transition metal atom. Further, this art does not describe the requirement, necessity, or even possibility, of an associated neutral Lewis base.

(2) CHEMISCHE BERICHTE, vol. 123, no. 8, August 1990, pages 1649-1651, Weinheim, DE; J. OKUDA: "Synthesis and Complexation of Linked Cyclopentadienyl-Amido Ligands".

This publication describing the synthesis and complexation of linked cyclopentadienyl-amido ligands was published after the date of filing of the application which led to the subject allowed application. This art describes what is recognized as a bridging group between the heteroatom and the cyclopentadienyl ligands, both of which are bonded to the transition metal atom. Applicant notes that it is recognized that this publication discloses titanium compounds having both the cyclopentadienyl ring ligand and another ligand bonded through a nitrogen atom to the titanium atom. It is also recognized that there is a bridging atom bonded to both the cyclopentadienyl ring and the nitrogen atom. Applicant notes that there is no suggestion within this

publication of a neutral Lewis base for the unbridged species of the compound.

(3) WO-A-8 703 887 (MITSUI PETROCHEMICAL INDUSTRIES LTD)

This publication is described in the first full paragraph of page 3 of the subject allowed application. The publication describes the broadly defined composition as a transition metal, preferably a Group IVB of the Periodic Table, which is coordinated with at least one cyclopentadienyl ligand and 1-3 heteroatom ligands, the balance of the coordination requirements being met with cyclopentadienyl or hydrocarbyl ligands. The metallocene/alumoxane catalyst system described is illustrated solely with reference to transition metal compounds which are bis-cyclopentadienyl Group IVB transition metal compounds.

(4) ORGANOMETALLICS, vol. 9, September 1990, pages 869-871, American Chemical Society, Washington, DC, US; P. J. SHAPIRO et al.: "[(N5-C5Me4)Me2Si(n1-NCMe3)(PMe3)ScH]2: A Unique Example of a Single-Component Alpha-Olefin Polymerization Catalyst"

This publication describes compounds of scandium metal which have a cyclopentadienyl ring ligand and a heteroatom-type ligand bonded to the scandium atom through a nitrogen atom. The nitrogen atom and the cyclopentadienyl ring are bridged through a silicon atom which forms part of a bridging group. This publication is related to the information reported during the June, 1988 Third Chemical Congress of North American held in Toronto, Ontario, Canada. The information presented

during that conference is disclosed and described as background in the second full paragraph of page 3 of the as-filed subject allowed application.

Respectfully submitted,

3/16/92
Date

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CERTIFICATE UNDER 37 CFR 1.10

I hereby certify that this document is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service with an Express Mailing Number of RB624937357US under 37 CFR 1.10 on March 16, 1992, and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Santiago Reyes
(Typed name of person mailing this document)

Santiago Reyes
(Signature of person mailing this document)